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12. (NEW) A planetary gear for mounting on an electromotor, having planetary gear wheels (10) fitted in a rotating planetary carrier (8) that forms an output and which are in simultaneous gear-tooth engagement with a sun gear (12) and an annular gear (14) positioned in a housing (2), such that the sun gear (12) is connected to a rotating sun gear shaft (4), which is hollow in a receiving area (16) to receive an output shaft of an electromotor, a sealing element (22) being provided between the sun gear shaft (4) and the housing (2), wherein the sealing element (22) is located axially outside the receiving area (16) for the output shaft of the electromotor, in an axial section of the sun gear shaft (4) with a reduced outer diameter compared to the receiving area (16).

13. (NEW) The planetary gear according to claim 12, wherein there is at least one bearing (28) for the sun gear shaft (4), whose inner ring is located axially outside the receiving area (16) for the output shaft of the electromotor on an axial section of the sun gear shaft (4) with a reduced outer diameter compared to the receiving area (16).

14. (NEW) The planetary gear according to claim 13, wherein the outer bearing ring of the bearing (28) for the sun gear shaft (4) is positioned in the planetary carrier (8).

15. (NEW) The planetary gear according to claim 13, wherein the bearing (28) for the sun gear shaft (4) is located radially inside an inner ring of a planetary carrier bearing (30) and axially at least partly within the space occupied by the planetary carrier bearing (30).

16. (NEW) The planetary gear according to claim 15, wherein the planetary carrier (8) has through bores (34, 36) on either side of each planetary gear wheel (10) to accommodate a planetary bearing pin (38) on which the planetary gear wheel (10) is mounted for rotation and an end face of the planetary bearing pin (38) abuts against inner bearing rings of planetary carrier bearings (30, 32), whereby the planetary bearing pin (38) is secured against axial displacement.

17. (NEW) The planetary gear according to claim 14, wherein an annular groove (48) is provided in the planetary carrier (8) to receive a circlip (46), which is axially adjacent to a functional surface (47) that receives the outer bearing ring of the bearing (28) for the sun gear shaft, and the outer bearing ring is secured against axial displacement in one direction by the circlip (46).

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18. (NEW) The planetary gear according to claim 17, wherein the sun gear shaft (4) is mounted so that it can be axially displaced against the restoring force action of an elastic compensating element (56).

19. (NEW) The planetary gear according to claim 18, wherein the axial compensating element is positioned axially between a face of the outer bearing ring opposite the circlip (46) and a functional surface (54) of the planetary carrier (8).

20. (NEW) The planetary gear according to claim 19, wherein the elastic compensating element is an O-ring (56).

21. (NEW) The planetary gear according to claim 13, wherein the sun gear shaft (4) is fitted so that it cannot move axially relative to the housing (2) and a spring-disc coupling is arranged between the sun gear shaft (4) and the output shaft of the electromotor to compensate for axial displacements.

22. (NEW) The planetary gear according to claim 12, wherein the diameter of the functional surface (26) of the sun gear shaft (4) associated with the sealing element (22) is smaller than the diameter of the bore (18) in the receiving area (16) of the sun gear shaft (4).